

ABSTRACT

An internal combustion engine variable compression ratio system is provided that includes a piston inner (5a), a piston outer (5b) that, while being fitted around the outer periphery of the piston inner (5a), so that it can slide only in the axial direction, is capable of moving to a low compression ratio position (L), a high compression ratio position (H), and a medium compression ratio position (M) between the above positions, and two sets of raising means (R_1 , R_2) disposed in line in the axial direction between the piston inner and outer (5a, 5b), each set of raising means (R_1 , R_2) including a movable raising member (14₁, 14₂), which can pivot individually between a non-raised position (A) and a raised position (B) around the axis of the piston inner and outer (5a, 5b). It is thus possible to provide an internal combustion engine variable compression ratio system that enables the compression ratio to be appropriately switched between at least three stages, that is, a low compression ratio, a medium compression ratio, and a high compression ratio, without rotating the piston outer.